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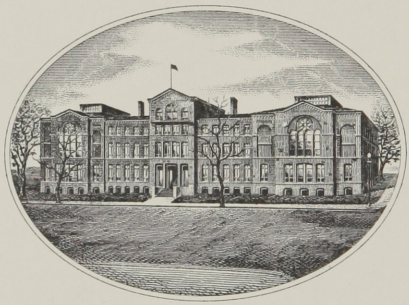

Founded 1836

U. S. Department of Health, Education, and Welfare

Public Health Service

ANNUAL ADDRESS

DELIVERED

BEFORE

THE MEDICAL SOCIETY

OF THE

STATE OF NEW-YORK,

FEBRUARY 4, 1829.

BY T. ROMEYN BECK, M. D.

PRESIDENT OF THE SOCIETY.

ALBANY:

PRINTED BY WEBSTERS AND SKINNERS.

1829.

ADDRESS.

GENTLEMEN OF THE SOCIETY,

SINCE we last closed our annual deliberations, events have occurred to remind us, that as well in our corporate as in our individual capacity, we are not exempted from the common lot of man. An aged and respected practitioner, one of the early Presidents of this Society, has during the last year, yielded to the inevitable stroke of fate.* Nor ought an allusion to his name to be omitted, under whose magistracy we held our last meeting. The friend and eulogist of our profession—the scholar and the statesman—the pride of his native state, has suddenly been removed.

It is a "taming thought to human pride," that although death destroys those whose existence is deemed most necessary to the common welfare, yet the train of events proceeds on with a steady march. It is no less evident that in the present æra of advancement in knowledge, no minor obstacle can be found which will permanently impede its course. In all the schemes for the melioration of the condition of man,—for his growth in science—his progress in morality and religion, the loss of one master spirit is early compensated by the acquisition of many ardent votaries. We feel this in our own profession.

* Hon. William Wilson, M. D. of Columbia county, President of the State Medical Society, during the year 1813.

The general diffusion of information brings numerous labourers into the common harvest—and emulation is excited as well by the examples of the present day, as by a retrospect of the past. There is no branch of medicine—either strictly belonging to its numerous departments, or ministering collaterally to their improvement, which is not industriously and successfully cultivated.

It is impossible to survey this effort, or its results, without a sensation of pleasure, or without a wish that its value may be generally understood. That there are impediments to this, is only to confess that human nature is imperfect and wayward. But if we examine more closely into the causes of the indifference or ignorance manifested by the greater part of mankind, we shall, I apprehend, find it mainly owing to the negligence of our own profession. The importance of the subject—its extensive and interesting bearings on human happiness—its magnitude, even as a branch of scientific study, are not sufficiently presented in relief before those who can judge with discrimination, or appreciate with accuracy. All proper occasions should be embraced to manifest to the community what is doing to remove the charge of uncertainty in medicine, and to illustrate the discoveries which the talent of the present age is bringing forward. I avail myself of the opportunity, at the conclusion of my term of office, to dwell for a short time on this subject in its interesting relations.

The first illustration I would offer of great IMPROVEMENT IN MEDICINE, is the *distrust which is obtaining against general theories.* There was a period when every physician ranged himself under the banner of some great name—adopted his doctrines

and obeyed the precepts which he inculcated. Many of the celebrated individuals to whom I refer, were indeed master spirits; whose lives cannot be read without admiration, and whose eloquence and learning won them willing votaries. Each in his turn, in various ages, down to our own days, fondly imagined that he had reared the imperishable monument, which neither time, nor human industry could overthrow—each imagined that he at least, had developed the laws of life—discovered their mysterious workings, and elucidated the changes that disease produces in them. But like material monuments, they have slowly crumbled, or been violently overthrown, and we search among the ruins for some precious relic that may have been forgotten in the destruction. Such they all contain. There is no theory ever yet promulgated, which is not based on some portion of positive truth. Indeed it could hardly have been otherwise. The founders were men of vigorous intellect and of keen observation. They drew from their own stores, and were only wanting in that universality of knowledge which is essential to the formation of a perfect system—They seized on some prominent phænomenon, and after examining it with skill and acuteness, made it the groundwork of their superstructure. In the devotion so natural towards a favourite opinion, other facts no less striking, were either unheeded or diminished in value to their mental view. Thus the basis was frequently narrow and contracted, but not, as some are fond of asserting, imaginary.

A subsidiary but important advantage has also accrued from the successive promulgation of these theories. The disciple, animated with an enthusiastic

belief in the doctrines of his preceptor; warmed by the eloquence of his prelections, or excited by the attacks of his opponents, applies himself to the invention of new arguments, or the detection of fallacious objections. In such a contest, with much that is superfluous, and often something that is offensive, additional facts are notwithstanding elicited, and the value of old ones is better understood and more correctly applied. A rapid accumulation is thus produced, of the mass of knowledge, for which otherwise, years of desultory effort would have been necessary. The utility of this has been noticed in other sciences. In geology, in particular, the promulgation of various theories, and the ardour with which they have been impugned or defended, certainly are among the principal causes of the numerous and most interesting data, of which it now boasts.

But notwithstanding this compensating benefit, the main objection which I have made remains, and it applies with peculiar force to these doctrines which are offered as explanatory of the phænomena of fever. This disease, in its various forms and numerous combinations, is a fertile source of investigation and most deservedly so—for it embraces a large proportion of the "ills to which flesh is heir." Fevers strictly so so called—the local inflammations—many forms of eruptive disease, and of hœmorrhage, besides a numerous list usually included under the head of chronic diseases, owe much of their character, as well as severity, to the symptoms usually denominated febrile.—To explain these in their order, and to account for the anomalies they so frequently present, has been deemed a fit employment for the wisest and most intellectual of our brethren in successive ages.

Their want of success may be read in the partial prevalence of a modern theory, of which, while I would desire to speak of it with respect, I must notwithstanding remark, that like its predecessors, it appears too partial and confined in its application. Its popularity amongst a portion of the medical profession in France, and the favourable reception it has met with in some parts of our own country, is not, I apprehend, any invalidation of what I have already said concerning the *general* distrust that is entertained. Due praise may be given for the improvements in pathological research which it encourages, (and which I shall hereafter more particularly notice,) and for the caution it has taught against pushing too far the use of some of our most active and valuable medicines; but its leading propositions cannot become the creed of the profession. A similar remark will apply to the opinions on the same disease, promulgated in England, by a talented individual. They both run counter to that course of practice, which, although requiring nice adjustment, has yet on the whole, been found, by those who have had the most extensive experience, the most beneficial in checking or removing disease. They necessarily lead—the one often to too active treatment—the other to an inefficient one—and though in the hands of their authors, these difficulties may not occur, yet in those of their followers, the result, if we may judge from all former experience, would appear to be inevitable. I am aware of the delicate ground which I occupy in making these remarks, and that I may expose myself to the charge of rash and unfounded censure; but the present is not the place for discussing the merits of these doctrines, and I have only aimed to announce and elucidate a

fact, which I believe you will agree with me, is correct, viz. that there is a great repugnance among the profession to embrace general theories, and to shape their practice in strict conformity to them, and that this repugnance is constantly increasing. Whether this is owing to ignorance or perverseness, is a secondary point of inquiry. I for one am free in ascribing it to the more general diffusion of knowledge—to a candid but decisive application of the experience of the past—and to an increasing desire to study diseases distinctly with reference to their appropriate, as well as ever-varying symptoms—and the changes that are thus produced.

This leads me to the notice of a second feature in the present history of medicine, illustrative of its improvement, viz. *the advancement in Pathological Research.*

If there be a single individual in later times to whom the honour of exciting and directing to this particular branch, is pre-eminently due, it is the illustrious Bichat. His life was closed at the early age of thirty-three years, but that short span was sufficient for him to produce his volumes in General and Descriptive Anatomy, his Treatise on the Membranes, and his Essay on Life and Death. And these works were the result of numerous and varied experiments and observations—of laborious and unwearied employment in the dissecting room—and finally, of the application of rare intellectual powers to their generalization and arrangement. The division of the body by him into its elementary textures—and the inquiry into their distinct properties, with the changes they undergo from disease—form the basis of discoveries, of which we cannot yet appreciate the extent, or the value.

Since his lamented death, the path of inquiry has been thronged by his votaries and admirers. In France, pathological anatomy is pursued by hundreds of ardent and active minds, and in England, with each succeeding year, it is evident that the subject is gaining and commanding consequence. In this nation, with obstacles peculiar, and in some instances almost insurmountable, some additions have been made to the general fund. The result is cheering to the man of science, as well as to the philanthropist. Knowledge is advanced, and human suffering is mitigated or removed. Look at the practical operation of this pursuit. An individual after struggling with disease which resists all medical skill, sinks under its effects. The symptoms have been narrowly watched by his attendant, and he has endeavoured to apply appropriate remedies. But occasionally some appearances have been noticed, the cause of which he cannot explain. His medical agents also do not produce their usual effects. What are the morbid changes that have caused this? If the lifeless body be consigned to its mother earth without examination, can any information, except of a mere negative kind, be drawn from the case, to be hereafter applied for the benefit of the living? Not so is the practice in the foreign countries which I have noticed. The view of the ravages of the disease illustrates the alterations which have taken place; and although they frequently appear rather as effects, than causes, yet sufficient is obvious to enable useful deductions to be formed, to explain many of the symptoms, and to furnish materials for reflection and improvement in future practice. Need I suggest that many diseases are yet imperfectly understood, and can only be elucidated by the light of this torch. How many have been thus developed

by the labours of Morgagni, Baillie and others. How many, even within the present century, have been successfully explored by Laennec and his compeers in France, by Bell and others in England. The nature of new or unknown diseases can thus alone be discovered. Allow me, in illustration, to refer to a case of mortality, the sudden announcement of which is feelingly remembered by every man in the community who was then living. If the death of our beloved and lamented WASHINGTON, was owing, as would seem from the brief account we have of his symptoms, to the disease now styled Laryngitis, where was the instruction to guide the practitioner? It was not until several years thereafter, that the sudden decease from it of two distinguished physicians in London, led to pathological examination. Its nature became evident—its mortality was rendered less certain—and dangerous as it must ever prove, instances are even multiplying of recovery from its effects. And yet this disease must have occurred centuries ago, and who can tell how many lives might have been prolonged, had its character been thus specially marked and investigated at an early period.

The tendency of these observations necessarily leads me to notice the importance of dissection. I am aware of the prejudices that must be encountered in discussing its necessity; but they must be overcome, if at all, by arguments that shall shake their vehemence. They owe their origin in some respects to the best feelings of the human heart—while they are unquestionably heightened by the practice of disinterment. But it is because we would render this alternative unnecessary, that I venture to mention the subject.

That an intimate knowledge of the condition of the human system, both in health and in disease, is in-

dispensable to the judicious application of curative means, would seem to be an axiom that requires only to be stated, in order to meet with universal credence. It is no less certain that the community must suffer from the consequences of ignorance. The truth of these remarks appears most strikingly in the department of surgery, although they will be no less conspicuous to him who will investigate, in that of medicine. In the language of the report made last summer to the English House of Commons, by a committee of its members not professional (a paper which should be in the hands of every intelligent citizen in our own country) "as the science of anatomy has improved, many operations formerly thought necessary have been altogether dispensed with; most of those retained, have been rendered more simple and many new ones have been performed, to the saving of the lives of patients, which were formerly thought impossible. To neglect the practice of dissection would lead to the greatest aggravation of human misery; since anatomy, if not learned by that practice, must be learned by mangling the living. Though all classes are deeply interested in affording protection to the study of anatomy, yet the poor and middle classes are most so: they will be the most benefitted by promoting it and the principal sufferers by discouraging it. The rich when they require professional assistance can afford to employ those who have acquired the reputation of practising successfully. It is on the poor, that the inexperienced commence their practice."

But it is not the poor only that are thus to be benefitted by the pursuit of anatomy. There is another class of the community whose condition must excite all the best feelings of our nature—the victims of the

elements—at a distance from their home—deprived of the blessings of domestic life, and yet proudly maintaining the honour and glory of their native land. Our gallant soldiers and sailors, in time of war, have no solace when the hour of danger approaches—no hope amidst the storm of battle, that they shall escape from the consequences of dangerous wounds, except in the skill of their medical attendants. The records of the armies and navies of foreign countries, and particularly of England, where the materials for comparison are most copious, attest how much of human life has been thus preserved, and how great has been the diminution of mortality, when compared with former years.

A word or two is necessary in defence of those who pursue these studies. All will grant that they would not have been selected, except from a high sense of duty. It requires some lofty incitement—some moral courage, to be thus employed. The mysterious change which death induces, is alone sufficient to startle the most buoyant spirit; but with this, the pathologist must familiarize himself. He proceeds to his high office at the risk of health—often indeed of existence. I appeal to your reading, in confirmation of the truth of my assertion, that for several years, scarcely a medical journal has arrived from abroad, which does not contain an account of some individual, who has either met with irreparable injury to his constitution, or has lost his life, from accidents occurring during dissection. Instances of a similar nature have happened in our own country—And apart from the honourable ambition of acquiring some fame, what can be the object of this untiring and hazardous labour? Is it not to ascertain what has been the cause of the mortality, and whether its seat and nature are

under the power of human skill? Surely, under the obstacles which I have noticed, a triumphant proof is given of the desire of improvement in our profession.

I will only notice a third circumstance indicative of my main proposition—viz, *a most remarkable improvement in the composition and administration of remedies.*

The slow progress of the materia medica in former times, is sufficiently explained by the fact that remedies are applied to a system, that we are scarcely ever certain, is constituted exactly alike in any two individuals. Apart then from the general operation of medicines, and even these are modified by the presence of different diseases, numerous observations are required to establish their respective characters. In addition to this, it was so much the fashion in former times, to unite several in one prescription, that it would seem almost impossible to designate the distinct effects of each. The imagination also often aids in diversifying these results. Some patients, buoyed up by an implicit confidence in a particular substance, assist as it were, its effects, while others take it in doubt and fear, and thus deprive it of half its efficacy. Another and most serious impediment to the advancement of the materia medica, has been the number of medicines which encumber our pharmacopœias and dispensatories.

Some of these difficulties are from their nature insurmountable—since they attach to the nature of the human system, and are inseparable from it. There are others, however, which our own times are about removing. It has been discovered, that many medicines, in whose efficacy all agreed, but whose effects were occasionally uncertain, are of a compound nature

—that, along with their curative constituents, they contain useless or noxious ingredients. We are indebted for this knowledge to modern chemistry—a science eminently practical in its details, and promising at no distant day to remodel its sister branch. I cannot adduce more striking examples of the fruit of this analysis, than the discoveries that have been made concerning bark and opium.

The first of these, the cinchona or Peruvian bark, has for many years been known as a powerful febrifuge. It was ascertained that there were several species of trees, which furnished it, and experiments soon showed that their qualities were various. From time to time a change took place in the popularity of the different kinds—but the difference in quality of the imported article, and the repeated disappointments experienced in its administration, either from loading the stomach, or causing other results destructive of its anti-febrile powers—all tended to impair its general reputation, and there was a period, where another remedy, but which all would agree in omitting, if its place could be supplied, was substituted. Chemists however have analyzed the bark, and found, that instead of being homogeneous, it consists of eight or nine ingredients. They have separated the important constituent (the quinine,) and in its distinct form, it is now to be purchased of every druggist. Of its general success in the removal of intermittents, every physician can speak.

Opium also is a remedy that all unite in commending, when judiciously administered. Its powers in mitigating pain and in soothing the wearied mind and diseased body, entitle it to a high rank among medicinal agents. Yet its operation has occasionally been unkind; and often when we are most desirous of ob-

taining its anodyne effects, a dread of its attendant consequences has restrained us from recommending it. Substitutes, comparatively inefficient, were necessarily employed. But about twenty years since, the compound nature of opium began to attract the attention of chemists, and from the experiments of Sertuerner, Robiquet, Pelletier and others, it seems now established that it consists of (besides several unimportant ingredients) three principles—morphia—narcotine and meconic acid. The first of these produces the soothing effects—without the feverish excitement, heat and head ache, which so frequently accompany the employment of the drug, and which from experiments seem referable to the second substance I have mentioned. The third does not appear to produce any effect on the human system. If morphia be united to an acid, its stimulating properties are apparently still further counteracted.

These are surely important improvements, and the more so, as they allow its use in states of disease, where it must otherwise have been interdicted.

But it is not only to the investigation of the nature of old remedies, and of which I might continue to adduce numerous examples, that the intellect and labour of the profession are directed. New therapeutic agents are constantly developing. Iodine was unknown in 1811. A manufacturer at Paris observed, that in preparing carbonate of soda from the ashes of sea-weeds, the residual liquor powerfully corroded metallic vessels. He inquired into the cause of the corrosion, and the result was the discovery of this substance—a simple, undecomposable body, so far as our knowledge extends. The next step was to ascertain in what bodies it exists—and among these, sea-weeds, the kelp prepared from them, sponges,

and some marine animals, were found to furnish it in the greatest quantity. A physician, recollecting that burnt sponge had acquired some local reputation in the treatment of goitrous affections, embraced the idea, that its virtue might have originated from the iodine it contained. He prescribed it in these diseases, and found its effects so powerful, that it was necessary to alter the form of administration. Yet his success and that of others have been great. Its use has been extended to the diseases of other glands. The result is still under judgment—but all agree, that an agent has been discovered more direct in its operation, than any yet known, on those maladies which minister to the production of our most common and fatal diseases.

Are these examples which I have adduced satisfactory in showing the exertions of the profession to improve the nature of remedies? Are they sufficiently illustrative of its desire to increase them, so far as sober judgment and prudence will warrant? If so, why should others, who are not of the profession, and who cannot, even in common charity, be supposed to have the necessary preliminary knowledge, either of medicines or of the body, be permitted to employ their supposed curative agents? It has been replied, that the use of vegetable remedies alone are to be permitted, and the usual argument advanced, that if they do no good—they will do no harm. But I would ask, whether the effects and the extent of vegetable and mineral medicines when thus placed in opposition to each other, are sufficiently understood. The supposed deleterious substances of the former class, which are most commonly used, are arsenic and mercury. They have been known for centuries as poisonous substances when given in considerable

quantities. The child hears and remembers this; and the man, long before he enters on the practice of medicine, has his mind deeply impressed with the necessity of administering them in small doses, and then only with caution, and after mature reflection—they are so given. Arsenic combined with potash has been used for upwards of forty years, with great success in the treatment of agues and other diseases. But it was not from choice. It was because the bark failed in numerous instances—because its quality was often bad, and its effects even positively injurious. For the reasons already stated, the use of quinine is rapidly diminishing the employment of the mineral.

As to mercury, I will only say, that if there be a single drug, that in human hands has proved a most distinguished curative means, it is this. That its effects may be occasionally uncertain or injurious, is only to repeat, that there are peculiarities of constitution for which the wisest cannot be prepared—or that there is a malignancy in some diseases which no human effort can counteract. But who will deny its positive utility? Look at the thousands whom, not only in tropical climates, but in our own country, it has saved from that fell destroyer of our race—fever. Look at the numerous inflammations it has checked or dissipated. Look at the tens of thousands whom it has saved from the consequences of vice.

A similar answer will apply, if we notice the remaining medicines. Their noxious effects (if any) are known—they are given under the high responsibility of this knowledge, and they are selected, notwithstanding this, because their effects are more cer-

tain, and their operation as kind, as those of vegetable substances.

But it would seem to be intimated that mineral medicines are incongruous to the human system, and a certain mysterious affinity has been imagined between it and vegetable remedies. The latter, it is asserted, are milder in their operation; produce healing effects more certainly, and are not injurious, like calomel, in their consequences. Are these assertions founded in a knowledge of the human body, and do the authors of the first idea know of what it is composed? Have they ever heard that a large proportion of the solid parts of the body are a mineral substance —the phosphate of lime? Do they know that iron enters into the composition of the blood?

But this is not all. Allow me to throw a rapid glance over these mild vegetable remedies—these substances that any man after a day's reading may administer. I have already enumerated two of them, opium and iodine. Opium has been raised in this state. It may be thus an indigenous product. Iodine may hereafter be extracted from the sea-weeds on your coast. Now a grain of narcotine extracted from the first, has killed a dog, and a few grains of the last taken daily for a short time, has destroyed a human being. Do you know of a substance which indicates its power over life by lessening the action of the heart with great rapidity—which reduces the rapid beat of the consumptive patient to comparative slowness? It is foxglove, a vegetable cultivated in many of our gardens. Are you acquainted with vegetables which will produce raving madness and convulsions—which inflame and destroy the texture of the stomach? The stramonium, cicuta and wild parsnip will do this. They too are indigenous—they

grow in our streets or lanes—or abound in our marshes. There is a substance which in small quantities convulses the palsied arm of the bed-ridden—the limb that has hung dead for years by his side. It is strychnine, a vegetable product. But to crown all this—what is the most concentrated and deadly poison with which we are acquainted—which will destroy all species of life, from the snail up to man, with the rapidity of lightning—which has struck down the suicide in death, before he could finish the fatal draught? It is prussic acid—a vegetable product, that can be distilled from the leaves and kernels of the peach, or from the laurels that abound throughout our state.

And yet, after this enumeration, we have only gone through a portion of the noxious vegetable substances. Let not this statement startle any of my hearers. It may be laid down as an axiom, generally true, that with the exception of some remedies in the classes of astringents and tonics, a vegetable is valuable as a medicine, in proportion as it is noxious in large quantities. In every botanical work, you find the remark, that those which are not possessed of some acrid qualities, are inefficient in their operation on the human system.

The question then presents itself to the mind of every enlightened man, whether those who have received an appropriate education; who have the stores of accumulated knowledge opened to them, are the safest persons to be entrusted with the care of the health of the community, or whether they shall be put on a par with such as claim instinct—or self-inspiration as their guides. Can these soldiers of Cadmus be expected to bring any useful spoil into the camp? Look at every modern work on the ma-

teria medica. We now know the nature of almost every secret remedy—Chemistry furnishes us with the means of analysis, and almost without an exception, they are the cast-off prescriptions of the older physicians—neglected, because more eligible substitutes have been obtained—or abandoned, because their constituents were found uncertain or dangerous. That man will render a service to the community, who will furnish our public prints with the receipts for compounding these vaunted catholicons.

I rejoice, that as your representative, I have been permitted to bear my testimony on this subject. I do not feel that the profession are to be the greatest sufferers. It will be the community—the country. The three professions at this day furnish the greatest proportion of educated men. Education is essential to the stability of the republic. Will it then be attempted to break down one of these professions? If so—the young men who now crowd its avenues, will seek other means of support—the old will retire in disgust from the thankless contest. The study of the collateral sciences, which has ministered so largely to the advancement of medicine, and which is beginning to give character to the nation, will cease. *The æra of improvement in medicine will have passed away*, and the encomium of Sir William Temple, quoted, and sanctioned, and applauded, by De Witt Clinton, will no longer apply. "It is 'certain (says he) that the study of physic is not 'achieved in any eminent degree, without very great 'advancement in the sciences, so that whatever the 'profession is, the professors of it have been gen-'erally very much esteemed on that account, as well 'as of their own art, as the most learned men of 'their ages."